



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/044,824	01/10/2002	Robert W. Arnold JR.	4620-00006	8046
26753	7590	01/24/2005	EXAMINER	
ANDRUS, SCEALES, STARKE & SAWALL, LLP 100 EAST WISCONSIN AVENUE, SUITE 1100 MILWAUKEE, WI 53202			GORDON, BRIAN R	
			ART UNIT	PAPER NUMBER
			1743	

DATE MAILED: 01/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/044,824

Applicant(s)

ARNOLD ET AL.

Examiner

Brian R. Gordon

Art Unit

1743

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11-4-04.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,5-11,13 and 17-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,5-11,13 and 17-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 January 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input checked="" type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, see remarks, filed November 4, 2004, with respect to claims 1-19 have been fully considered and are persuasive. The 102 rejection of claims 119 has been withdrawn.

On page 9 of the remarks, applicant states "there are significant differences in both the construction and operation that are now more clearly set out in the amended claims and distinguish over the Kelly et al. reference." Applicant should be aware that the "operation" or the manner in which a device is used does not a factor and in determining the novelty of structural inventions.

It has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. Ex parte Masham, 2 USPQ2d 1647 (1987).

Applicant further explains his interpretation of the elements of the invention Kelly et al. and how the device is intended to be used. Applicant then concludes "there is no teaching whatever in Kelly et al. that this construction assures that the upper ends of the tier (44) tips will have cleared and not be hung up on the flexible flaps such that the tips are unable to drop by gravity the short distance into the tray (62) of the pipette tip rack (64). This is especially problematic when one considers that the flexible flaps (58) must be relatively thick to support the long vertical columns of tips as mentioned above. The thickness of flexible claims (58) is not shown in the drawings or described in the specification, and with respect to Fig. 6, one must assume that the flaps (58) are the same thickness as plate material surrounding the holes (52)." Whether or not the tips

Art Unit: 1743

get hung or not are not an issue of the claim. Therefore the above argument is not commensurate in scope with that of the claim. Furthermore, applicant is once again arguing functionality or how the device is intended to be used.

The functional recitations of elements being adapted to perform a function have not been given patentable weight because it is in narrative form. In order to be given patentable weight, a functional recitation must be expressed as a "means" for performing the specified function, as set forth in 35 USC 112, 6th paragraph, and must be supported by recitation in the claim of sufficient structure to warrant the presence of the functional language. *In re Fuller*, 1929 C.D. 172; 388 O.F.279.

It has been held that the recitation that an element is "adapted to" or "capable of" performing a function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense. *In re Hutchison*, 69 USPQ 138.

Applicant further asserts the pipette tips getting hung is problematic due to the thickness of the flexible flaps. First, the prior art is not required to address the same problems or issues of applicant. Secondly, Kelly et al. does not mention the weight (or force) of the tips; therefore, applicant cannot merely assert the flaps are thick or are of the same thickness of the plate material and result in a problem in the tips getting hung. As previously stated, the argument is not commensurate in scope with that of the claims, however; applicant admits Kelly et al. teaches "a push plate (56) engaging the upper ends of the tips in the uppermost tier to push all tiers vertically downwardly until the lowermost tier passes the flexible flaps (58) on the support plate (50), thereby releasing the tips to drop into the holes of the tray (62)." While the functionality is not a patentable issue as stated above, the examiner asserts and applicant admits the device of Kelly et. al. functions as stated. The tips are pushed through the apertures, past and separated from the flexible lips and ion the tip support position on the pipette holder.

As to the thickness or thinness of the flexible lips, applicant has amended the claim to recite "flexible lips being substantially thinner than the thickness of the main body portion. The term "substantially thinner" is relative. There is no numerical value given for one to determine how much thinner than the thickness of the main body portion is considered "substantially thinner". What one person may consider substantially thinner another may not.

Applicant further argues "the system utilizes a push plate construction that positively assures that the upper ends of the tier of pipette tips being transferred completely clears the flexible lips 23". The argument is based upon function and not structure. However, the examiner asserts and applicant admits (remarks page 9, last paragraph –page 10) the push plate 56 does function as such.

Claim Interpretation

Claims structure claims 1 and 20 are directed to a reloading system for placing pipette tips in an empty pipette holder. However, the only elements positively claimed as elements of the system are a transfer plate and a push plate. Applicant has included descriptions of the pipette tips and pipette holder which applicant intends for the system to be used with in combination. For the purpose of examination, the characteristics or particulars of the pipette tips and pipette holder are not considered as elements of the invention. Therefore, the prior art is not required to be used with pipette tips having the particulars of the unclaimed elements. It appears as if the pipette tips and holder should be positively claimed for applicant appears to rely on the functionality of the flexible lips relative to the pipette tips as being a patentably distinct feature. That is the lips

supporting tip by engaging the mounting sleeve of the tip. Such functionality would be considered a limitation, if the particular tips are positively claimed and the function incorporated in means plus function format. For example, flexible lip means for supporting a pipette tip by said upper mounting sleeve.

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "flexible lips being substantially thinner than the thickness of said main body portion" must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will

be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 5, 8, 9, 10, 11, 17, 20, 21 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claims recite the terms "generally" or "approximately" further describe the elements of the invention. The terms are relative. For example it is unclear what applicant considers "generally flat". There is no numerical range given to determine what deviation from being completely "flat", "equal", "perpendicular", or "planar" is acceptable to applicant. Applicant may consider something approximately equal or generally flat while another may not. The terms are relative to one's perspective. As to claims 1 and 17 the term "substantially thinner" is relative. There is no numerical value given for one to determine how much thinner that the thickness of the main body portion is considered "substantially thinner". What one person may consider substantially thinner another may not.

4. Claims 1 and 20 recites the limitation "the underside" in lines 11 and 10, respectively. There is insufficient antecedent basis for this limitation in the claim.
5. Claim 7 recites the limitation "the flat support surface" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Art Unit: 1743

6. Claim 9 recites the limitation "said support structure" in lines 1-2. There is insufficient antecedent basis for this limitation in the claim. Appears as if claim 9, should depend upon claim 7.

7. Claim 11 recites the limitation "the juncture" in line 4. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

10. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

Art Unit: 1743

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

11. Claims 1, 5, 8, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kelly et al. US 5,779,9847 in view of Borg, US 735,562.

Kelly et al. discloses each limitation of the instant claimed invention. Specifically, Kelly et al. discloses a SPACESAVER refill pack in which the housing supports several vertically separated horizontally extending carrier plates (transfer tray) each having an array of holes matching the array of holes in the support tray of standard pipette tip racks (pipette holder) and each supporting an array of replacement pipette tips. For compactness, the distal ends of vertically adjacent pipette tips in each array nest freely in the open proximal ends of the next lower array of pipette tips. A push plate is supported at an upper open end of the housing and allows a user to successively dispense arrays of pipette tips from the open bottom of the housing into a series of empty pipette tip racks simply by pushing downward on the push plate. Alternatively the user may periodically replenish the pipette tips in a single reusable tip rack.

"A push plate 56 (with array of fingers on underside) in an open top of the housing 54 and (4) flexible resident flaps 58 bounding the holes 52 for releasably securing the proximal end portion 20P of the pipette tips 20 of the array 42 in the holes in the support plate 50 (see FIG. 6). Upon a user application of a downward force on the push plate 56, the nested arrays 42-48 are forced downward within the housing 54 causing the flaps 58 (flexible lips) to flex downwardly to enlarge the openings of the

holes 50 and allow the lowermost array 42 of pipette tips 20 to drop vertically from the open bottom of the housing 54 into an empty pipette tip rack located under the housing."

Kelly et al. does not disclose the flexible flaps (lips) as being thinner than the main body portion of the transfer plate.

Borg discloses a device for holding and supporting containers. The device comprises apertures that include inwardly projecting reinforced flanges (60) that are thinner than the main body portion 40 (see figures).

12. Claims 1, 5, 6, 8, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kelly et al. US 5,779,9847 in view of Galbierz, 6,059,099.

Kelly et al. discloses each limitation of the instant claimed invention. Specifically, Kelly et al. discloses a SPACESAVER refill pack in which the housing supports several vertically separated horizontally extending carrier plates (transfer tray) each having an array of holes matching the array of holes in the support tray of standard pipette tip racks (pipette holder) and each supporting an array of replacement pipette tips. For compactness, the distal ends of vertically adjacent pipette tips in each array nest freely in the open proximal ends of the next lower array of pipette tips. A push plate is supported at an upper open end of the housing and allows a user to successively dispense arrays of pipette tips from the open bottom of the housing into a series of empty pipette tip racks simply by pushing downward on the push plate. Alternatively the user may periodically replenish the pipette tips in a single reusable tip rack.

"A push plate 56 (with array of fingers on underside) in an open top of the housing 54 and (4) flexible resident flaps 58 bounding the holes 52 for releasably

securing the proximal end portion 20P of the pipette tips 20 of the array 42 in the holes in the support plate 50 (see FIG. 6). Upon a user application of a downward force on the push plate 56, the nested arrays 42-48 are forced downward within the housing 54 causing the flaps 58 (flexible lips) to flex downwardly to enlarge the openings of the holes 50 and allow the lowermost array 42 of pipette tips 20 to drop vertically from the open bottom of the housing 54 into an empty pipette tip rack located under the housing.”

Kelly et al. does not disclose the flexible flaps (lips) as being thinner than the main body portion of the transfer plate.

Galbierz discloses a carrier for holding a plurality of bottles includes a top panel, side panels depending from the top panel, and a bottom panel. The top panel has at least a top ply, a middle ply, and a bottom ply. The top and second plies includes a plurality of apertures with a plurality slits radiating outwardly from an edge of the each of the apertures to define a plurality of top and second ply tabs (equally spaced) around the top and second ply apertures, respectively. The tabs support and hold the bottles concentrically in the carrier. As seen in the figures the tabs are thinner than the entire width of the panel (main body portion). The second ply tabs are “generally coplanar” to the undersurface of the panel.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the device of Kelly et al. to incorporate the tabs of Galbierz in order support and ensure central alignment of the supported pipette tips.

13. Claims 7, 20, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kelly et al. in view of Galbierz as applied to claims 1, 5, 6 8, and 10 above, and further in view of Petrek US 6,286,678.

Kelly et al. in view of Galbierz do not teach the transfer plate as including support structures depending from the underside thereof between the apertures.

Petrek discloses a refill pack of lightweight low mass material containing an array of replacement pipette tips for a reusable tip rack. The refill pack comprises a support plate with an array of holes containing pipette tips arranged in an organized manner and including a guide for centering and guiding the support plate onto the tip rack with distal end portions of the pipette tips aligned with corresponding holes in an organizing tray in the tip rack, the support plate including vertically extending lateral support means (76, 81, or 88) adjacent at least some of the holes in the plate to engage sides of the pipette tips to laterally support such tips against lateral rocking on the plate.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the modified device of Kelly et al. to incorporate the lateral supports of Galbierz on the transfer plate to center the tips and prevent lateral rocking thereof.

14. Claim 11, 13, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kelly et al. in view of Galbierz as applied to claims 1, 5, 6 8, and 10 above, and further in view of Lahti US 6,164,449.

Kelly et al. in view of Galbierz do not disclose the push plate as comprising fingers including a shoulder formed at a point where the cylindrical proximal end and tapered distal end of the pipette intersect.

Lahti teaches a pipette tip refill pack has several layers of pipette tips. The refill pack 6 according to FIG. 5 comprises a bottom plate 7, a push plate 8 and a shell 9. In a matrix corresponding to the holes 4 of the perforated plate 3 of FIG. 1, there are provided pins 10 (fingers). The pins have a wider bottom part and a top part that is narrower than the top part of the tip 5, but otherwise corresponding to the conical shape thereof.

As seen in the figure the device is inverted. However the pins comprises both a cylindrical portion and tapered portion which intersect to form a shoulder.

It would have been obvious to one of ordinary skill in the art at the time of the invention to recognize pins as that taught by Lahti may be employed within the modified device of Kelly et al. to support and advance the tips of the refill pack.

15. Claim 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kelly et al. in view of Galbierz and Lahti as applied to claims 11, 13, and 17 above, and further in view of Petrek US 6,286,678.

Kelly et al. in view of Galbierz and Lahti do not teach the transfer plate as including support structures depending from the underside thereof between the apertures.

Petrek discloses a refill pack of lightweight low mass material containing an array of replacement pipette tips for a reusable tip rack. The refill pack comprises a support plate with an array of holes containing pipette tips arranged in an organized manner and including a guide for centering and guiding the support plate onto the tip rack with distal end portions of the pipette tips aligned with corresponding holes in an organizing tray in

Art Unit: 1743

the tip rack, the support plate including vertically extending lateral support means (76, 81, or 88) adjacent at least some of the holes in the plate to engage sides of the pipette tips to laterally support such tips against lateral rocking on the plate.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the modified device of Kelly et al. to incorporate the lateral supports of Galbierz on the transfer plate to center the tips and prevent lateral rocking thereof.

Conclusion

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Stolcenberg discloses a container holder.

17. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian R. Gordon whose telephone number is 571-272-1258. The examiner can normally be reached on M-F, with 2nd and 4th F off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden can be reached on 571-272-1267. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

brg


Jill Warden
Supervisory Patent Examiner
Technology Center 1700